

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Original): A two-way radio communication system for two-way communication between first and second radio stations, the two-way radio communication system comprising:

a first radio station equipped with a signal modulator for generating a modulated signal in an intermediate frequency band that is lower than a radio frequency;

a modulated transmission signal generator that produces a modulated radio transmission signal by using a local oscillation signal to up-convert the modulated signal to a radio frequency band;

a transmitter that transmits the local oscillation signal used by the modulated transmission signal generator together with the modulated radio transmission signal as a radio signal; and

a receiver that receives a radio signal from a second radio station and down-converts the received signal to a modulated frequency band by using the local oscillation signal utilized for up -conversion by the modulated transmission signal generator;

a second radio station equipped with a local oscillation signal regenerator for extracting and regenerating just a local oscillation component from among signal components received from the first radio station;

a receiver that uses a local oscillation signal regenerated by the local oscillation signal regenerator to down-convert a received modulated radio signal to an intermediate frequency band;

a signal modulator for producing a modulated signal in an intermediate frequency band that is lower than a radio frequency; and

a transmitter that uses the local oscillation signal regenerated by the local oscillation signal regenerator to up-convert to a radio frequency band a modulated signal produced by the signal modulator.

Claim 2 (Currently Amended): A two-way radio communication system for two-way communication between first and second radio stations, the two-way radio communication system comprising:

first and second radio stations, each of which ~~radio stations are~~ is equipped with a signal modulator for generating a modulated signal in an intermediate frequency band that is lower than a radio frequency;

a modulated transmission signal generator that produces a modulated radio transmission signal by using a local oscillation signal to up-convert the modulated signal to a radio frequency band;

a transmitter that transmits the local oscillation signal used by the modulated transmission signal generator together with the modulated radio transmission signal as a radio signal, wherein the local oscillation signal is linearly superposed on the modulated transmission signal; and

a receiver that receives a radio signal from the other radio station and down-converts the received signal to a modulated intermediate frequency band by generating a multiplication component of a modulated radio signal component and local oscillation signal component received from the other radio station.

Claim 3 (Currently Amended): A two-way radio communication system for two-way communication between first and second radio stations, the two-way radio communication system comprising:

a first radio station equipped with a signal modulator for generating a modulated signal in an intermediate frequency band that is lower than a radio frequency;

a modulated radio signal generator that uses a local oscillation signal to up-convert the modulated signal to a radio frequency band;

a transmitter that from among sideband signals generated during conversion of a modulated intermediate frequency band signal to the radio frequency band by the modulated radio signal generator, selects an upper-side-band signal as a radio signal and transmits the selected radio signal together with the local oscillation signal utilized by the modulated radio signal generator, wherein the local oscillation signal is linearly superposed on the modulated transmission signal; and

a receiver that receives a radio signal from the second radio station and down-converts the received signal to a modulated intermediate frequency band by generating a multiplication component of a modulated radio signal component and local oscillation signal component received from the other radio station;

a second radio station equipped with a signal modulator for generating a modulated signal in an intermediate frequency band that is lower than a radio frequency;

a modulated radio signal generator that uses a local oscillation signal to up-convert the modulated signal to a radio frequency band;

a transmitter that from among sideband signals generated during conversion of a modulated intermediate frequency band signal to the radio frequency band by the modulated radio signal generator, selects a lower-sideband signal as a radio signal and transmits the selected radio signal together with the local oscillation signal utilized by the modulated radio signal generator; and

a receiver that receives a radio signal from the first radio station and down-converts the received signal to a modulated intermediate frequency band by generating a

multiplication component of a modulated radio signal component and local oscillation signal component received from the first radio station.

Claim 4 (Original): A two-way radio communication method for conducting two-way communication between first and second radio stations, the two-way radio communication method comprising:

a first radio station that transmits a radio signal to a second radio station by generating a modulated signal in an intermediate frequency band that is lower than a radio frequency, producing a modulated radio transmission signal, using a local oscillation signal to up-convert the modulated signal to a radio frequency band and transmitting the local oscillation signal used by the modulated radio transmission signal with the modulated radio transmission signal as a radio signal; and when receiving a radio signal from the second radio station, down-converts the received signal to a modulated frequency band by using the local oscillation signal utilized for up-conversion; and

a second radio station that extracts and regenerates local oscillation components from among signal components received from the first radio station, uses a local oscillation signal thus regenerated to down-convert a received modulated radio signal to an intermediate frequency band and, when transmitting a radio signal to the first radio station, produces a modulated signal in an intermediate frequency band that is lower than a radio frequency, and uses the regenerated local oscillation signal to up-convert to a radio frequency band a modulated signal produced by the signal modulator.

Claim 5 (Currently Amended): A two-way radio communication method for conducting two-way communication between first and second radio stations,

wherein the ~~two-way radio communication method comprising~~ first and second radio stations, ~~that~~ in a case of mutual transmission of radio signals between the stations, each generate a modulated signal in an intermediate frequency band that is lower than a radio frequency, produce a modulated radio transmission signal, use a local oscillation signal to up-convert the modulated signal to a radio frequency band and transmit the local oscillation signal used by the modulated radio transmission signal linearly superposed on ~~with~~ the modulated radio transmission signal as a radio signal; and

when a radio signal is received from the other radio station, down-convert the received signal to a modulated intermediate frequency band by generating a multiplication component of a received modulated radio signal component and local oscillation signal component.

Claim 6 (Currently Amended): A two-way radio communication method for conducting two-way communication between first and second radio stations,

~~the two-way radio communication method comprising transmission by a first radio station of a radio signal to a second radio station by generating~~ wherein the first radio station, when transmitting a radio signal to a second radio station, generates a modulated signal in an intermediate frequency band that is lower than a radio frequency, ~~producing~~ produces a modulated radio transmission signal[[,]] using a local oscillation signal to up-convert the modulated signal to a radio frequency band and ~~transmitting~~ transmits the local oscillation signal used by the modulated radio transmission signal with the modulated radio transmission signal as a radio signal, wherein the local oscillation signal is linearly superposed on the modulated transmission signal; and

wherein the first radio station, when receiving a radio signal from the second radio station, down-converts the received signal to a modulated intermediate frequency band by

using the local oscillation signal utilized for up conversion and, of sideband signals generated during conversion of a modulated intermediate frequency band signal to the radio frequency band, selects an upper-side-band radio signal and transmits the selected radio signal together with the local oscillation signal utilized by a modulated radio signal generator;~~and~~

wherein the first and second radio stations, when receiving a radio signal is received from the other radio station, each down-converts the received signal to a modulated intermediate frequency band by generating a multiplication component of a received modulated radio signal component and local oscillation signal component;

wherein the second radio station, when transmitting a radio signal to the first radio station, generates ~~and transmission to the first radio station by a second radio station,~~ generating a modulated signal in an intermediate frequency band that is lower than a radio frequency, ~~producing~~ produces a modulated radio transmission signal, ~~using~~ uses a local oscillation signal to up-convert the modulated signal to a radio frequency band and, of sideband signals generated during conversion of a modulated intermediate frequency band signal to the radio frequency band by the modulated radio signal generator, ~~selecting~~ selects a lower-side-band radio signal and ~~transmitting~~ transmits the selected radio signal together with the local oscillation signal;~~and when a radio signal is received from the first radio station,~~ ~~down-converting~~

wherein the second radio station, when receiving a radio signal from the first radio station, down-converts the received signal to a modulated intermediate frequency band by generating a multiplication component of a received modulated radio signal component and local oscillation signal component.